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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,833	09/15/2003	Jinsaku Masuyama	016295.1453 (DC-05051)	1211

7590 10/11/2007

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ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
10/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/662,833	MASUYAMA ET AL.	
	Examiner	Art Unit	
	Mohammad S. Adhami	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- Applicant's amendment filed 7/27/2007 is acknowledged.
- Claims 1-20 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7,10-14,16,19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chaganty (US 6,285,656).

Re claim 1:

Chaganty discloses *a first switch with a server-side port and a switch-side port* (Fig.1 ref.100,125 and 145 note – ref.100 should be ref.105).

Chaganty further discloses *the server-side port in communication with a server* (Fig.1 ref.125 and 155).

Chaganty further discloses *a second switch in communication with the server* (Fig.1 ref. 110).

Chaganty further discloses *a fail-over circuit in the first switch in communication with the server-side port* (Col.3 lines 9-11 Flow switch 110 becomes active and begins delivering the packets when flow switch 110 detects a failure of flow switch 105 where the fail-over circuit).

Chaganty further discloses *a status circuit in the first switch in communicating link status of the switch-side port to a fail-over circuit* (Col.8 lines 38-39 Flow switch continues to monitor status signals and status signal requests where the status circuit and fail-over circuit are part of the switch).

Chaganty further discloses *the fail-over circuit in communication with the server automatically disabling the server-side port in response to receiving a link status of down from the status circuit* (Col.3 lines 46-47 While in a passive state, flow switch continues to hold all of its Ethernet ports in a disabled state where once a switch fails, it goes from active to passive and the ports are disabled).

Chaganty further discloses *the second switch automatically taking over for the first switch after disablement of the user-side port of the first switch, such that the first switch automatically fails over to the second switch* (Col.3 lines 9-11 33 Flow switch 110 becomes active and begins delivering the packets when flow switch 110 detects a failure of flow switch 105).

Re claim 2:

Chaganty discloses *the first switch automatically disables the server-side port substantially in real time* (Col.3 lines 11-14 The minimum amount of time between a failure by flow switch 105 and activation of flow switch 110 is less than 10 seconds where once flow switch 110 is activated, flow switch 105 is passive and therefore the ports are disabled).

Re claims 3 and 4:

Chaganty discloses *a server with a team of network interface devices in communication with the first and second switches* (Fig.1 ref. 155,160,165 and 170 where the switches inherently contain network interface devices).

Chaganty further discloses *the server automatically utilizing the second switch instead of the first switch in response to the disablement of the server-side port of the first switch* (Col.3 lines 9-11 33 Flow switch 110 becomes active and begins delivering the packets when flow switch 110 detects a failure of flow switch 105).

Re claim 5:

Chaganty discloses *a switch side port in the first switch* (Fig.1 ref.145).

Chaganty further discloses *a switch-side port in the second switch* (Fig.1 ref.145).

Chaganty further discloses *an external switch in communication with the switch-side ports in the first and second switches via respective first and second uplink* (Fig.1 ref. 175 and 145).

Re claim 6:

Chaganty further discloses *the fail-over circuit automatically disabling the server-side port in response to the failure of the first uplink* (Col.3 lines 46-47 While in a passive state, flow switch continues to hold all of its Ethernet ports in a disabled state where once a switch fails, it goes from active to passive and the ports are disabled).

Re claim 7:

Chaganty discloses *a switch-side port* (Fig.1 ref. 145).

Chaganty further discloses *a server-side port* (Fig.1 ref.125).

Chaganty further discloses *a status circuit communicating link status of the switch-side port to a fail-over circuit* (Col.8 lines 38-39 Flow switch continues to monitor status signals and status signal requests where the status circuit and fail-over circuit are part of the switch).

Chaganty further discloses *the fail-over circuit automatically disables the server-side port in response to a link status of down for the switch-side port from the status circuit* (Col.3 lines 46-47 While in a passive state, flow switch continues to hold all of its Ethernet ports in a disabled state where once a switch fails, it goes from active to passive and the ports are disabled).

Re claim 10:

Chaganty discloses *multiple server-side ports* (Fig.1 ref.125,130,135,140).

Re claim 11:

Chaganty discloses *multiple fail-over circuits that automatically disable the multiple server-side ports in response to receiving a link status of down for the switch-side port* (Col.3 lines 46-47 While in a passive state, flow switch continues to hold all of its Ethernet ports in a disabled state where once a switch fails, it goes from active to passive and the ports are disabled).

Re claim 12:

Chaganty discloses *monitoring link status of a switch-side port of a switch* (Col.8 lines 38-39 Flow switch continues to monitor status signals and status signal requests).

Chaganty further discloses *in response to detecting a link status of down on the switch-side port, automatically disabling a server-side port of the switch* (Col.3 lines 46-47 While in a passive state, flow switch continues to hold all of its Ethernet ports in a disabled state where once a switch fails, it goes from active to passive).

Re claim 13:

Chaganty discloses *automatically disabling the server-side port in substantially real time* (Col.3 lines 11-14 The minimum amount of time between a failure by flow switch 105 and activation of flow switch 110 is less than 10 seconds where once flow switch 110 is activated, flow switch 105 is passive and therefore the ports are disabled).

Re claim 14:

Chaganty discloses *automatically triggering a fail-over circuit in the switch to disable the server-side port* (Col.3 lines 46-47 While in a passive state, flow switch continues to hold all of its Ethernet ports in a disabled state where once a switch fails, it goes from active to passive and the ports are disabled).

Re claim 16:

Chaganty discloses *monitoring link status of the server-side port of the first switch* (Col.8 lines 38-39 Flow switch continues to monitor status signals and status signal requests).

Chaganty further discloses *in response to detecting the link status of down on the server-side port of the first switch, automatically failing over from the first switch to the second switch* (Col.3 lines 9-11 33 Flow switch 110 becomes active and begins delivering the packets when flow switch 110 detects a failure of flow switch 105).

Re claim 19:

Chaganty discloses *automatically disabling a server-side port of the switch during a boot process of the switch* (Col.8 line 1 flow switch 105 enters a passive state, where this is during startup).

Re claim 20:

Chaganty discloses *automatically disabling a server-side port of the switch in response to failure of the switch* (Col.3 lines 46-47 While in a passive state, flow switch continues to hold all of its Ethernet ports in a disabled state where once a switch fails, it goes from active to passive and the ports are disabled).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chaganty in view of McIntyre (US 6,381,218).

Re claim 8:

As discussed above Chaganty meets all the limitations of the parent claim.

Chaganty does not explicitly disclose *a selection circuit in communication with the fail-over circuit that prevents the fail-over circuit from disabling the server0side port in response to receiving a link status of down.*

McIntyre discloses *a selection circuit in communication with the fail-over circuit that prevents the fail-over circuit from disabling the server-side port in response to receiving a link status of down* (Col.7 lines 33-42 There are at least three fault tolerance (FT) modes from which to choose. In a "Manual" mode, a failover occurs when a "Switch Now" button is pressed regardless of whether the active port is in a failed state. In a "Switch On Fail" mode, a failover occurs when the active port loses link or stops receiving and switches back to the original active port when that port comes back online).

Chaganty and McIntyre are analogous because they both pertain to network communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chaganty to include a selection circuit as taught by McIntyre in order to prevent data loss and offer an override for more control.

3. Claims 9,15,17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaganty in view of Gai (US 6,032,194).

Re claims 9,15,17, and 18:

As discussed above, Chaganty meets all the limitations of the parent claim.

Chaganty further discloses *continuing to monitor the link status of the switch-side port of the switch after automatically disabling the server-side port* (Col.8 lines 38-39 Flow switch continues to monitor status signals and status signal requests).

Chaganty does not explicitly disclose *automatically restoring the server-side port of the switch and resuming communication with the first in response to detecting a link status of up*.

Gai discloses *automatically restoring the server-side port of the switch and resuming communication with the first in response to detecting a link status of up* (Fig.3E ref. 352 and 358 and Col.14 lines 11-13 The present invention also provides for rapid reconfiguration when a new link (or switch) is added or receovered).

Chaganty and Gai are analogous because they both pertain to network communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chaganty to include recovery of a first switch as taught by

Gai in order to optimize network resources and route data along the most efficient path.

4. Claims 1,7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiuchi (US 6,882,653) in view of Mimms (US App. 2002/0176355).

Re claim 1:

Kiuchi discloses *a first switch with a user-side port and a network-side port* (Fig.7 ref. 120-a and Col.8 lines 30-31 "a router located in the primary signal processor" where Fig.7 ref.1110-a and 120-a together comprise a switch and Fig.4 ref. ref.127 is the user-side port and 125 is the network-side port).

Kiuchi further discloses *a second switch in communication with a server* (Fig.7 ref. 120-b).

Kiuchi further discloses *a fail-over circuit in the first switch* (Fig.7 ref.110-a and Fig.3 ref.111 where the processor controls the primary signal processor).

Kiuchi further discloses *a status circuit in the first switch that communicates link status of the network-side port to the fail-over circuit* (Fig. 7 ref. 110-a and Fig.3 ref. 111 and Fig.4 ref.121 where the processor maintains link status information and Col.12 lines 37-38 The processor of the primary signal processor detects a fault).

Kiuchi further discloses *the fail-over circuit automatically disabling the user-side port in response to receiving a link status of down from the status circuit* (and Col.12 lines 37-38 The processor of the primary signal processor detects a fault and Col.12 lines 42-46 The processor of the controller blocks the

group of lines 1 contained in the primary signal processor, where blocking is disabling them).

Kiuchi further discloses *the second switch automatically taking over for the first switch after disablement of the user-side port of the first switch, such that the first switch automatically fails over to the second switch* (Col.11 lines 60-61 incoming calls can be alternatively routed to another primary signal processor).

Kiuchi does not explicitly disclose *a first switch with a server-side port and a switch-side port.*

Mimms discloses *a first switch with a server-side port and a switch-side port* (Fig.1 ref.110 is a switch with a server side port and a switch-side port where the server-side port and switch-side ports of Mimms correspond to the user-side port and the switch-side port, respectively, of Kiuchi).

Kiuchi and Mimms are analogous because they both pertain to network communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kiuchi to include a switch with a server-side port and a switch-side port as taught by Mimms in order to allow network devices on different networks to communicate.

Re claim 7:

Kiuchi discloses *a network-side port* (Fig.4 ref.125).

Kiuchi further discloses *a user-side port* (Fig.4 ref.127).

Kiuchi further discloses *a fail-over circuit in communication with a user-side port* (Fig.7 ref.110-a and Fig.3 ref.111 where the processor controls the primary signal processor).

Kiuchi further discloses *a status circuit in communication with the fail-over circuit* (Fig. 7 ref. 110-a and Fig.3 ref. 111 where the processor contains status circuit and a fail-over circuit).

Kiuchi further discloses *the status circuit communicates link status of the network-side port to the fail-over circuit* (Fig. 7 ref. 110-a and Fig.3 ref. 111 and Fig.4 ref.121 where the processor maintains link status information and Col.12 lines 37-38 The processor of the primary signal processor detects a fault).

Kiuchi further discloses *the fail-over circuit automatically disables the user-side port in response to a link status of down for the network-side port from the status circuit* (and Col.12 lines 37-38 The processor of the primary signal processor detects a fault and Col.12 lines 42-46 The processor of the controller blocks the group of lines 1 contained in the primary signal processor, where blocking is disabling them).

Kiuchi does not explicitly disclose *a first switch with a server-side port and a switch-side port*.

Mimms discloses *a first switch with a server-side port and a switch-side port* (Fig.1 ref.110 is a switch with a server side port and a switch-side port where the server-side port and switch-side ports of Mimms correspond to the user-side port and the switch-side port, respectively, of Kiuchi).

Kiuchi and Mimms are analogous because they both pertain to network communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kiuchi to include a switch with a server-side port and a switch-side port as taught by Mimms in order to allow network devices on different networks to communicate.

Re claim 12:

Kiuchi discloses *monitoring link status of a network-side port of a switch* (Fig. 7 ref. 110-a and Fig.3 ref. 111 and Fig.4 ref.121 where the processor maintains link status information and Col.12 lines 37-38 The processor of the primary signal processor detects a fault).

Kiuchi further discloses *in response to detecting a link status of down on the network-side port, automatically disabling a user-side port of the switch* (Col.12 lines 37-38 The processor of the primary signal processor detects a fault and Col.12 lines 42-46 The processor of the controller blocks the group of lines 1 contained in the primary signal processor, where blocking is disabling them).

Kiuchi does not explicitly disclose *a first switch with a server-side port and a switch-side port*.

Mimms discloses *a first switch with a server-side port and a switch-side port* (Fig.1 ref.110 is a switch with a server side port and a switch-side port where the server-side port and switch-side ports of Mimms correspond to the user-side port and the switch-side port, respectively, of Kiuchi).

Kiuchi and Mimms are analogous because they both pertain to network communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kiuchi to include a switch with a server-side port and a switch-side port as taught by Mimms in order to allow network devices on different networks to communicate.

Response to Arguments

5. Applicant's arguments filed 7/27/2007 have been fully considered but they are not persuasive.

In the remarks on pg.8, Applicant contends Chaganty does not disclose monitoring the link status of a switch-side port.

The Examiner respectfully disagrees. Chagantry does disclose monitoring the link status of a switch-side port (Col.8 lines 38-39 Flow switch continues to monitor status signals and status signal requests where the status circuit and fail-over circuit are part of the switch). The status signals monitor the switch, which includes the switch-side port. If a failure with the switch is detected, then a failure with the switch-side port is also detected.

In the remarks on pg.9, Applicant contends transmitting a blocking signal is distinct from disabling a server-side port.

The Examiner respectfully disagrees. Kiuchi discloses disabling a port (and Col.12 lines 37-38 The processor of the primary signal processor detects a fault and Col.12 lines 42-46 The processor of the controller blocks the group of lines 1 contained in the primary signal processor). Transmitting the blocking signal disables the port.

In the remarks on pg.10, Applicant contends the fault cases of Kiuchi do not appear on the network-side originating at the user and therefore are not analogous to monitoring the link status of the switch-side port.

The Examiner respectfully disagrees. The Examiner is interpreting the network-side of Kiuchi (Fig.7 ref. 120-a and Col.8 lines 30-31 "a router located in the primary signal processor" where Fig.7 ref.1110-a and 120-a together comprise a switch and Fig.4 ref. ref.127 is the user-side port and 125 is the network-side port) as being the Applicant's switch-side port. The faults in Kuichi occur on the network-side port (Applicant's switch-side port) and therefore read on the claimed invention.

In the remarks on pg.10, Applicant contends when Kuichi and Mimms are combined, only fault cases 4 and 5 of Kuichi are applicable.

The Examiner respectfully disagrees. Mimms is relied upon to explicitly meet the limitation of a server-side port and a switch-side port. These disclosures do not limit Kuichi to only fault cases 4 and 5 and therefore the

combination is valid and the claimed limitations are met. Futhermore, Mimms does not exclude the use of fault cases 1-6.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad S. Adhami whose telephone number is (571)272-8615. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSA 10/4/2007

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